

REMARKS

This Response is submitted in reply to the Office Action dated November 4, 2005. Claims 9 to 16, 19 to 27, 29 to 38 and 40 to 67 stand withdrawn. Claims 1, 18, 28 and 39 have been amended. The specification has also been amended. No new matter has been added by such amendments.

No fee is due in connection with this Response. However, if a fee is due, please charge deposit account number 02-1818 for any insufficiency of payment.

The Office Action objected to the drawings for failing to comply with 37 CFR 1.84(p)(4). Replacement drawings are submitted herewith to correct Figures 1C, 1E, 1F, 1H, 1J and 5C. Accordingly, Applicant submits that this objection has been overcome.

The Office Action objected to the specification for various informalities. Applicant has amended the specification to correct the majority of these cited informalities. Please note that the Office Action stated that the term "electrically" located on page 7, line 8 should be changed to read "electrical", however Applicant was unable to locate the term "electrically" on page 7, line 8.

The Office Action rejected Claim 18 under 35 U.S.C. §112, second paragraph, as being indefinite because there is insufficient antecedent basis for the limitation "the top coating." Applicant has amended Claim 18 to provide a sufficient antecedent basis for this limitation. Accordingly, Applicant respectfully submit that this rejection has been overcome.

The Office Action rejected Claims 1 to 8, 17, 18, 28 and 39 under 35 U.S.C. §102(e) as being anticipated by Greep (U.S. Patent Application Publication No. 2003/0163125).

Greep discloses an electrosurgical electrode wherein at least a portion of the electrode is coated with an active catalyst and a binder material. An energy source, such as a heat source, a light source, a microwave source, or other electromagnetic radiation or energy source cooperates with the electrosurgical electrode to activate the catalytic particles. The active catalytic particles advance the release of charred blood and/or tissue (i.e., eschar) which accumulates on the electrode during an electrosurgical

procedure by interacting with the eschar constituents to reduce chemical absorption and/or bonding. The activated particles react with the carbon or nitrogen based materials in the accumulated eschar. As a result, bonds that have occurred between the eschar and the surface of the electrode are broken, allowing the eschar to release from the electrode.

Amended independent Claim 1 is directed to an electrosurgical device including an electrode, a handle connected to the electrode and an electrical source in communication with the handle to transfer electrical energy to the electrode for contacting tissue in a body during an electrosurgical procedure. The electrode includes a conductive substrate and at least one substantially uniform coating applied to the substrate. The coating includes a base material and a plurality of anti-microbial particles interspersed in the base material, wherein the anti-microbial particles are formulated to reduce or kill a plurality of microbial organisms independent of any energy source.

Unlike the catalytic particles of the electrosurgical device disclosed in Greep, the anti-microbial particles of the electrosurgical device of amended independent Claim 1 are formulated to reduce or kill a plurality of microbial organisms independent of any energy source. The catalytic particles of Greep must be activated by an energy source to break the bonds that have occurred between the eschar and the surface of the electrode and thus allow the eschar to release from the electrode. Greep does not disclose catalytic particles that are formulated to break such bonds independent of any energy source. In other words, the activation of the catalytic particles of Greep (and accordingly the breaking of the bonds between the eschar and the electrode) is dependent on an energy source. On the other hand, the anti-microbial particles of the electrosurgical device of amended independent Claim 1 are formulated to reduce or kill a plurality of microbial organisms independent of any energy source. That is, unlike the electrosurgical device of Greep which is formulated to break the bonds that have occurred between the eschar and the surface of the electrode only when the electrosurgical device is in use (i.e., connected to an energy source), the anti-microbial particles of the electrosurgical device of amended independent Claim 1 are formulated

to reduce or kill a plurality of microbial organisms while the electrosurgical device is in use, as well as when the electrosurgical device is not in use (i.e., in storage). Accordingly, Applicant respectfully submits that amended independent Claim 1 is patentably distinguished over Greep and in condition for allowance.

Claims 2 to 8, 17 and 18 depend directly or indirectly from amended independent Claim 1 and are also allowable for the reasons given with respect to Claim 1, and because of the additional features recited in these claims.

Amended independent Claims 28 and 39 are each directed to an electrosurgical instrument (Claim 28) and a method of coating an electrosurgical device (Claim 39) that include, amongst other elements, a plurality of anti-microbial particles interspersed in a base material, wherein the anti-microbial particles are formulated to reduce or kill a plurality of microbial organisms independent of any energy source. As described above with respect to amended independent Claim 1, Greep does not disclose catalytic particles that are formulated to break bonds that have occurred between the eschar and the surface of the electrode independent of any energy source. On the other hand, the anti-microbial particles of the electrosurgical instrument and the method of coating an electrosurgical device of amended independent Claims 28 and 39 respectively, are formulated to reduce or kill a plurality of microbial organisms independent of any energy source. Accordingly, Applicant respectfully submits that amended independent Claims 28 and 39 are patentably distinguished over Greep and in condition for allowance.

The Office Action rejected Claim 39 under 35 U.S.C. §103(a) as being unpatentable over Greep in view of Greep et al. (U.S. Patent Application Publication No. 2003/0109864).

As described above, Greep relates to an electrosurgical electrode wherein at least a portion of the electrode is coated with an active catalyst. An energy source is utilized to activate the catalytic particles to break one or more bonds that have occurred between the eschar and the surface of the electrode. As stated in the Office Action, Greep et al. relates to a method of partially curing a base material and filler on a substrate. Accordingly, the combination of Greep and Greep et al. would result in an electrosurgical electrode wherein at least a portion of the electrode is coated with an

active catalyst and the coating is at least partially cured. An energy source is utilized to activate the catalytic particles of this resulting electrosurgical electrode to break one or more bonds that have occurred between the eschar and the surface of the electrode.


Amended independent Claim 39 is directed to a method of coating an electrosurgical device including a conductive substrate which includes evenly applying a substantially uniform coating to a surface of the conductive substrate, the coating including a base material and a plurality of anti-microbial particles interspersed in the base material, wherein the anti-microbial particles are formulated to reduce or kill a plurality of microbial organisms independent of any energy source, and at least partially curing the substantially uniform coating.

The Office Action states that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Greep with the partial curing method of Greep et al. to allow particles to be permanently embedded in the base material. Applicant respectfully submits that regardless of if it would have been obvious to apply the curing method of Greep et al. to the electrode of Greep, the electrosurgical instrument resulting from such a combination would not teach, disclose or suggest catalytic particles that are formulated to break bonds that have occurred between the eschar and the surface of the electrode independent of any energy source. On the other hand, the anti-microbial particles of the electrosurgical device of amended independent Claim 39 are formulated to reduce or kill a plurality of microbial organisms independent of any energy source. Accordingly, Applicant respectfully submits that amended independent Claim 39 is patentably distinguished over Greep in view of Greep et al. and in condition for allowance.

An earnest endeavor has been made to place this application in condition for formal allowance and in the absence of more pertinent art such action is courteously solicited. If the Examiner has any questions regarding this Response, Applicant respectfully requests that the Examiner contact the undersigned.

Respectfully submitted,

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Amendments to the Drawings:

The attached sheets of drawings includes changes to Figures 1C, 1E, 1F, 1H, 1J and 5C. These sheets replace the original sheets including Figures 1C, 1E, 1F, 1H, 1J and 5C.

Attachment: Replacement Sheets

FIG. 1C

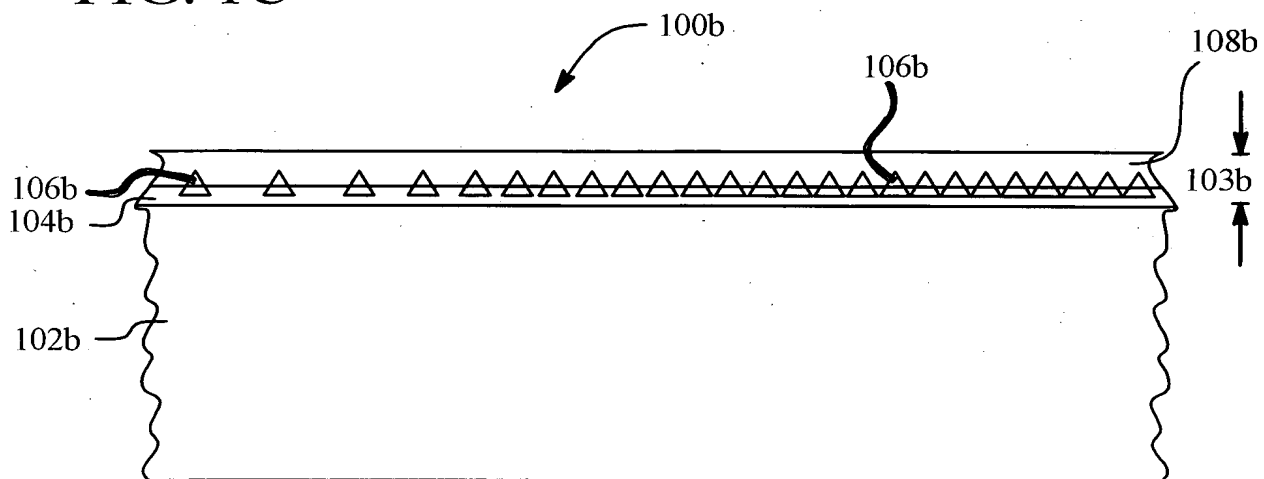


FIG. 1D

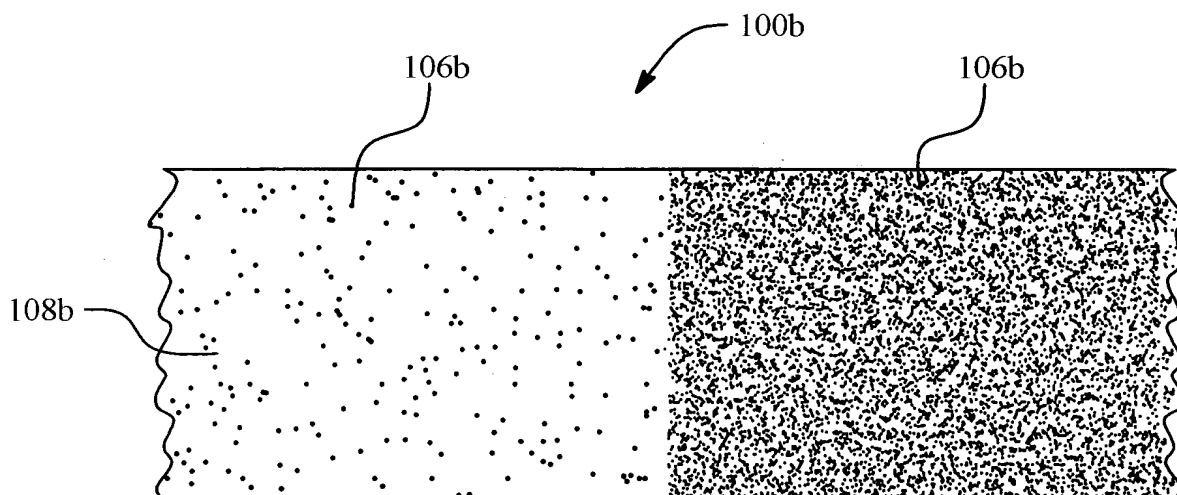


FIG. 1E

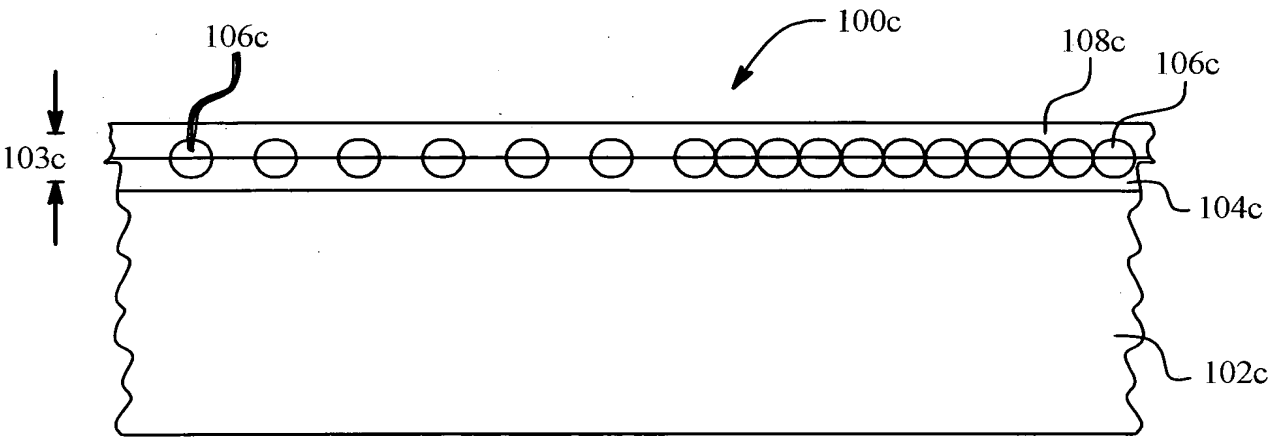


FIG. 1F

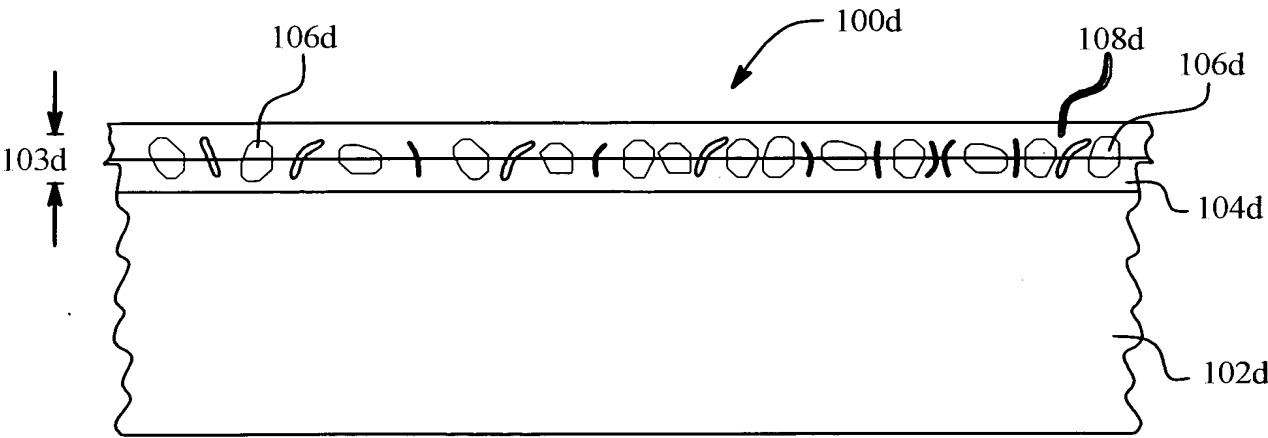


FIG. 1G

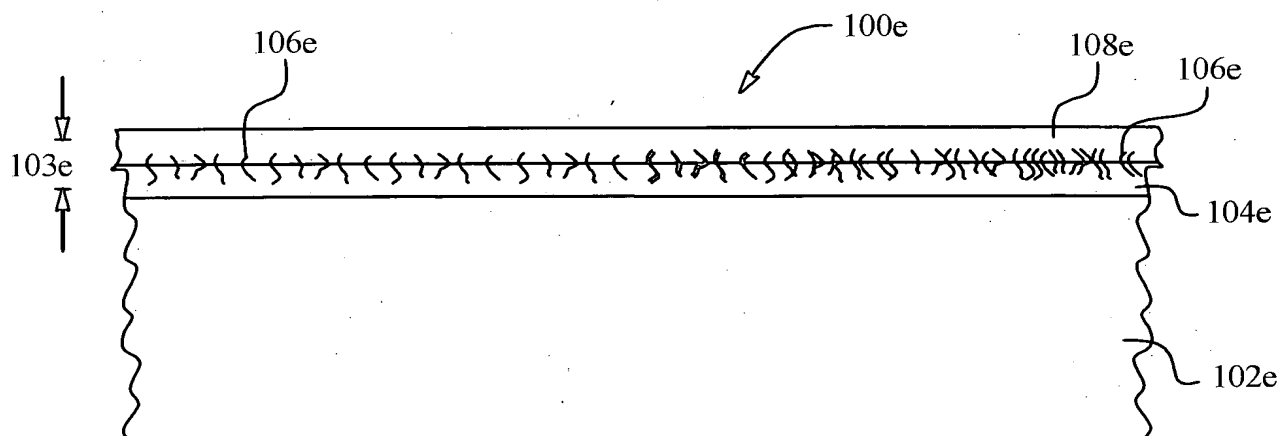


FIG. 1H

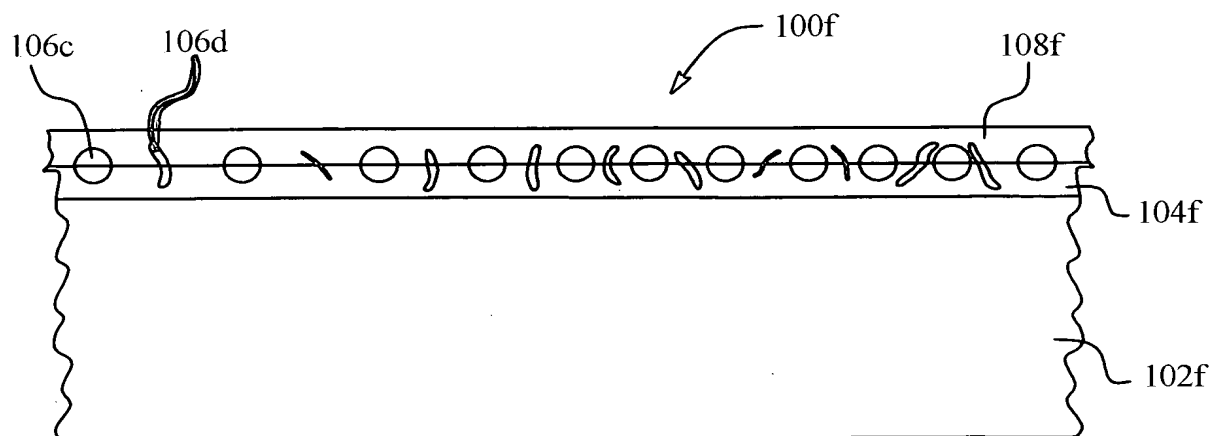


FIG. 1I

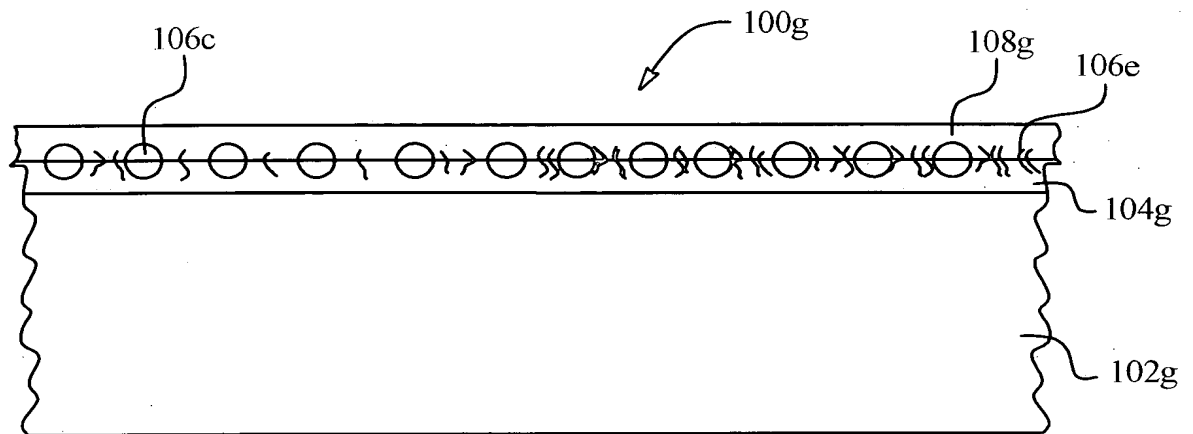


FIG. 1J

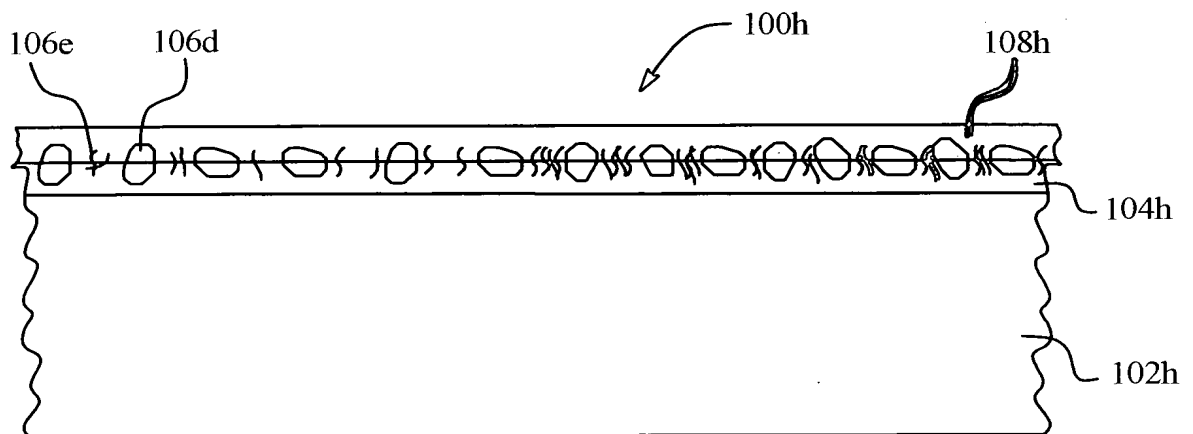


FIG. 5B

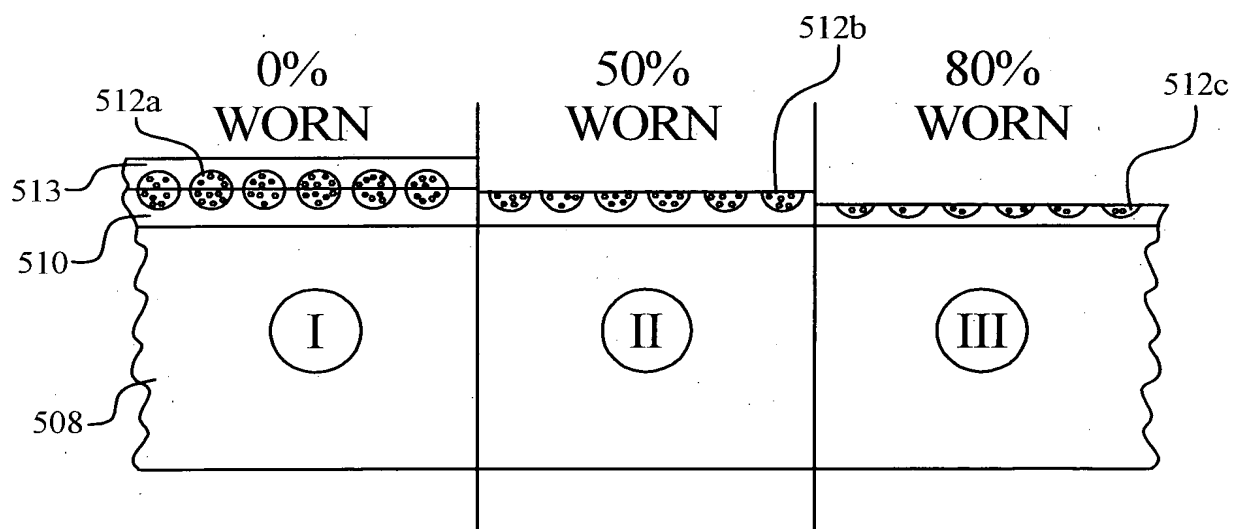


FIG. 5C

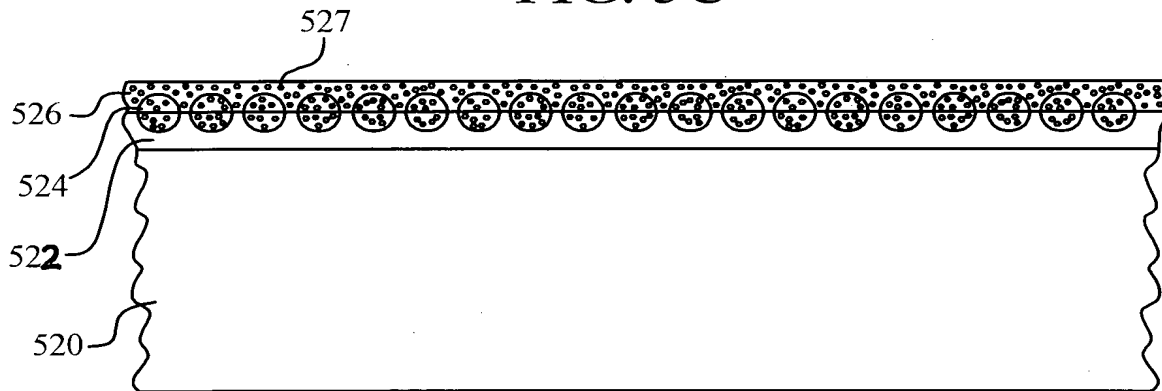


FIG. 5D

